



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of:

Mathias SCHAFFORZ

Appl. No. 09/944,217

Filed: September 4, 2001

For: METHOD OF AND APPARATUS
FOR DIVIDING A WEB OF WRAPPING
MATERIAL

Art Unit: 3724

Confirmation No. 2647

Examiner: Stephen CHOI

Atty. Docket No. 31653-174372

Customer No.

26694

PATENT TRADEMARK OFFICE

SUPPLEMENTAL APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Supplemental Appeal Brief accompanies a Request for Reinstatement of the Appeal, the Appeal Brief of which was filed on April 23, 2004 and supplemented on July 29, 2004. Thus, no additional appeal fee is believed due; however, Appellant requests a one-month extension of time to timely file the Request for Reinstatement of the Appeal and the Supplemental Appeal Brief. Should additional fees be due please charge the same to Deposit Account 22-0261.

Accordingly, this Supplemental Brief incorporates some of the parts of the previously-filed brief as noted. In view of the Examiner's change of the rejections, the Status of the Claims, Status of Amendments and Issues sections have been modified and Appellant's arguments address the new ground of rejections raised after prosecution had been reopened after the initial Appeal. Appellant now presents herewith this Supplemental Appeal Brief pursuant to 37 C.F.R. § 41.37.

I. REAL PARTY IN INTEREST

The Assignee of this entire Application, and thus the real party of interest in this Appeal is as stated in the Appeal Brief filed July 29, 2004.

II. RELATED APPEAL AND INTERFERENCES

No Appeal or Interference is known to Appellant, the Appellant's legal representative or Assignee which would directly affect or be directly affected by or have a bearing on the Board's decision in the pending Appeal.

III. STATUS OF CLAIMS

The Application was filed with claims 1-31. Original claims 5-6, 16-17, and 23-28 are withdrawn as drawn to a non-elected species of the invention where elected claims 1-3, 7, 9, 15, and 18-22 are generic to the listed species. Claims 1, 12, 15, and 29-31 were amended and claims 4 and 13 were canceled in the June 2, 2003 Response to Election of Species Requirement and Amendment. Claims 1, 15, and 19-22 and 29 were amended in the Amendment filed on September 17, 2003.

After an Appeal Brief was filed on April 23, 2004 and Supplemented on July 29, 2004, the Examiner withdrew the finality of the final Office Action thereby reopening prosecution of this application. Appellant exercises option (2) with the filing of this Supplemental Brief and the concurrently-filed Request for Reinstatement of the Appeal.

Claims 1-3, 7-12, 14-15, 18-22 and 29-31 are appealed and set forth in the Appendix to this Brief. It is believed that claims 1-3, 7, 9, 15, and 18-22 are generic to the species listed in the Election of Species Requirement.

IV. STATUS OF AMENDMENTS

No Amendments were filed after the final rejection mailed November 21, 2003.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

As shown Figure 1, the method of dividing an elongated web (1) having a variable width into a plurality of elongated strips (3, 4) is written in step-plus-function fashion as permitted by 35 U.S.C. §112, paragraph 6. As described below each of the

step-plus-function clauses may include the structure described in Appellant's specification (or equivalents thereof) to achieve the recited steps of independent method claim 1.

In particular, "advancing the web lengthwise in a predetermined direction along a predetermined path" is disclosed on page 9, lines 8-10 and page 24, lines 10-12 of the originally-filed disclosure. The bobbin or reel (not shown in the fragmentary Figure) is set into rotary motion to pay out the web (1) lengthwise in the predetermined direction (2). The additional rolls or rollers shown in the Figure assist in moving the web in the predetermined direction.

The step of "subdividing the web into a plurality of strips, including cutting the advancing web in at least one severing plane [P-P]" finds support at page 9, lines 11-12 and lines 23-24 of the originally-filed specification. The subdividing function is performed by a severing unit (6) when the web (1) is moved passed the blades (7) as explained in page 19, lines 2-14 and page 24, lines 12-19 of the originally-filed specification of the present application.

Page 9, lines 13-14 of the present application provides support for the recitation of "monitoring the widths of each of the strips and generating signals denoting the monitored widths". The structure for performing the recited function can be achieved by a respective sensor (26, 27) for each divided strip (3, 4) of the web (1), which transmit appropriate signals denoting the width of the respective strip to a control unit 28 (Page 22, lines 10-23; page 23, lines 3-9 and page 24, line 20 to page 25, line 1 of the present application.

The recited "processing said signals" step finds support at page 9, lines 14-19 and page 9, line 24 to page 10, line 7 in the present application. The control unit 28, described above, processes the signals to determine if there is a difference between widths and then generates a second signal to send to adjusting unit 29 to compensate for the deviation between widths. This is described at page 23, lines 3-9 and page 29, lines 5-19 of the present application.

This brings us to the last recited step of "shifting at least one of the web and the severing plane sideways when the processing step indicates departure of at least one monitored width from at least one other monitored width." The present application

discloses this method at page 9, lines 19-22, page 10, lines 12-14 and page 11, lines 6-18. Structure for achieving this recited function may include an adjusting unit 29 with rollers 31 and 32 and motor M, or an adjusting unit 20, or an adjusting unit 120. See page 23, lines 9-24, page 25, lines 11-17, and page 25, lines 19-24, respectively.

Independent claim 15 is directed to the apparatus for dividing an elongated web (1) having a variable width into two strips (3, 4) and recites each element in means-plus-function format as permitted by 35 U.S.C. §112, paragraph 6. The support in the present disclosure and the structure described in the specification as corresponding to the recited function is as follows:

“means for advancing the web lengthwise in a predetermined direction along a predetermined path” is a bobbin or reel (not shown in fragmentary Figure 1) is set into rotary motion to pay out the web (1) lengthwise in the predetermined direction (2). The additional rolls or rollers (e.g., 31, 32; 9, 11; 13, 14) shown in Figure 1 assist in moving the web in the predetermined direction. The specification describes this means-plus-function structure at page 19, lines 2-5, page 20, line 3 to page 22, line 9 of the present application.

Page 19, lines 2-14 of the present application describes the “means for subdividing the web into two strips including a severing unit arranged to split the web in a severing plane” as a severing unit (6) having two rotary disc-shaped knives (7) where the knives are above and below the web (1).

Sensors (26 and 27) are disclosed as the “means for monitoring the widths of each of the strips and for generating first signals denoting the monitored widths”. That is, according to 35 U.S.C. §112, paragraph 6, the recited monitoring means has a sensor for each divided strip. Sensors 26 and 27 and their function is described at page 22, lines 10-19, and page 23, lines 3-5 of the present application.

A control unit (28) receives the first signals denoting the width of each strip and then compares the widths of the divided strips and generates a second signal, which is transmitted to an adjusting unit when the width of one of the strips (3, 4) departs from the width of the other. This is structure that corresponds to the recited “means for processing said first signals and for generating second signals when the widths of the strips deviate

from each other” as explained on page 23, lines 3-9 and from page 24, line 20 to page 25, line 6 of the present application.

The recited “adjusting means including means for shifting at least one of the web and the subdividing means transversely of said direction in response to said second signals” includes two means-plus-function elements. The adjusting means may be adjusting unit 29, which includes two elongated parallel rollers 31, 31 that are located below and above the adjacent path (page 23, lines 9-17 of the present application). The adjusting means includes “means for shifting” that is disclosed as being “means 33 for turning the adjusting unit about the axis that is normal to the adjacent portion” of the web path and “includes a reversible electric motor M which can turn the unit 29 in directions indicated by a double-headed arrow 34.” See page 23, lines 18-21 of the present application. Alternate “adjusting means” are described on page 25, lines 11-17 and page 25, lines 19-24 of the present application.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection for review are as follows:

A. Whether claims 1-3, 7-12, 14-15, 18 and 29-31 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,627,319 to Mattei et al. (hereinafter referred to as “Mattei”)?

B. Whether claims 19-22 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Mattei in view of U.S. Patent No. 4,960,234 to Focke?

VII. ARGUMENT

A. Whether claims 1-3, 7-12, 14-15, 18 and 29-31 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,627,319 to Mattei et al. (hereinafter referred to as “Mattei”)?

Appellant will show that Mattei does not render the claimed invention unpatentable under 35 U.S.C. § 103 (a) because there is no reason, suggestion, or motivation to modify Mattei in the manner required to produce the claimed invention. To establish a prima facie case of obviousness, the prior art reference must teach or suggest

all of the limitations of the claims against which it is applied. MPEP 2142. “all words in a claim must be considered in judging the patentability of that claim against the prior art”. *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970), quoted in MPEP 2143.03.

Moreover, even if Mattei was modified as suggested in the Action, the claimed invention would not result as Mattei does not detect the width of each strip, as explained in more detail below.

1. Argument for claims 1-3, 7-12 and 14

The Examiner’s Position

According to the Action mailed October 20, 2004, the Action characterizes Mattei as disclosing “means for monitoring the widths of each of the strips and for generating first signals denoting the monitored widths (33, 34, Figures 4-5).” However, Mattei does not disclose means for monitoring the widths of each of the strips. Instead of a disclosure, a suggestion or a teaching, the Action ignores Appellant’s argument that only one strip is monitored and simply states that “Mattei does not expressly teach the web having a variable width.” Then the Action concludes, without support, that the “device of Mattei is capable of performing the recited function.”

Mattei does not disclose the monitoring step of claim 1

As described above in Section V, the recited method claim is in step-plus-function language and the recited apparatus is in means-plus-function form that is permitted by 35 U.S.C. §112, paragraph 6. 35 U.S.C. §112, paragraph 6 requires that the recited elements correspond to the disclosed structure and equivalents thereof.

Thus, the monitoring step requires that each of the plurality of strips be monitored. In the Office Action mailed November 21, 2003, the Action acknowledges that Mattei only teaches measuring the width of one of the two strips. See Office Action dated November 21, 2003, page 4, lines 12 and 13. In the November 2003 Action, it was the Examiner’s position that the claims do not require two separate sensors to measure the widths of each of the strips. However, as explained in Section V above, Appellant’s

specification discloses two sensors or monitors 26, 27 as the “means for monitoring the widths of each of the strips”. Mattei does not disclose two detector devices for **monitoring the widths of each strip**.

To the contrary, Mattei discloses “means for checking and correcting the width of the position of the first and second webs” including detectors 33 and 34 (column 1, lines 64-67 of Mattei) where only one of the detectors has arms long enough to measure the width of the first web. See Figures 2 and 3, column 3, lines 12-30 and column 4, lines 13-20 of Mattei. Thus, Mattei clearly teaches that only one detector is needed to monitor the width of a first strip. The second detector 34 measures the lateral position of the web and cannot measure the width of the second strip because its arms do not extend across the width of the second strip.

As a result, Mattei cannot generate signals denoting the monitored widths, as only one width is measured. Moreover, Mattei teaches that only a single width detector is needed because, according to Mattei, it is sufficient to check and correct the width of only one of the two strips in order to obtain two strips of identical width (column 4, lines 18-20 of Mattei). Independent claim 1 recites that the method is for dividing an elongated web **having a variable width**. Thus, it is respectfully submitted that Mattei is not capable of performing the recited function. This is because Mattei assumes that the web has a constant width as it is the only way Mattei can presume that measuring the width of one strip will enable him to obtain the width of the second strip.

Mattei does not disclose the shifting step of claim 1

In view of the fact that Mattei teaches that its device is to obtain two webs of identical width, there is no reason why Mattei would perform the recited step of “shifting at least one of the web and the severing plane sideways **when the processing step indicates departure of at least one monitored width from at least one another monitored width**”(claim 1, emphasis provided). That is, according to Mattei’s disclosure, two webs of identical width are to be formed and only one width is to be monitored. Thus, Mattei fails to disclose, teach or suggest the recited shifting step because Mattei is not concerned with the recited function of the shifting step.

The deviation device 5 taught by Mattei does displace web 2. However, Mattei does not displace web 2 in response to **monitored widths** of the divided strips, as claimed by Appellant. Instead, Mattei teaches that when the web 10 is centered perfectly with respect to the cutter device, two webs 10 and 11 are identical in width and as a result a zero logic signal is generated so that the motor 14 of the deviation device 5 is not activated. That is, Mattei teaches shifting the web based on the position of one of the divided webs. See column 4, lines 56-65 of Mattei. Again, Mattei measures the position or orientation of a web and makes modifications (deviations) as a result of this measurement. This is not monitoring the width of each strip and then shifting the web because the monitored widths depart from one another, as claimed by Appellant.

In the October 20, 2004 Action, the Examiner states: “Whether the widths of strips cannot be made equal on the Mattei when the variations occur is irrelevant the issue.” The claimed method is directed to dividing an elongated web having **a variable width**. Mattei teaches that its web has a constant width, as argued above, because Mattei only needs to measure the width of one strip. Thus, Mattei clearly teaches against the claimed invention. There is no suggestion or reason to modify Mattei for dividing an elongated web having **a variable width**. There is no teaching or suggestion of monitoring both divided strips in Mattei – only a teaching against monitoring both widths. Finally, there is no teaching of comparing one monitored width against a second monitored width (the claimed processing step) as Mattei is concerned with the undivided web moving to the left or right thereby resulting in an uneven split of the web. That is, Mattei is concerned with the position of the web as that is what, according to Mattei, causes the divided webs to be of unequal widths. Accordingly, there is no motivation to modify Mattei to have a monitor for each divided web and to deviate the web based on the monitored width of each divided web. Consequently, it is only with a hindsight reconstruction of Appellant’s invention that the Action modified Mattei as there is no motivation to modify Mattei in the manner claimed by Appellant.

As such, it would not be obvious to modify the invention of Mattei as proposed by the Office Action. Accordingly, the rejection of claim 1 based Mattei is improper and should be reversed. Claims 2, 3, 7-12 and 14 depend from claim 1 and are allowable as depending from an allowable claim.

2. Argument for claims 15, 18-22 and 29-31

As described above in Section V, apparatus claim 15 is similar to method claim 1 in that it essentially recites “means for” performing the method steps.

The Examiner’s Position

According to the Action mailed October 20, 2004, the Action characterizes Mattei as disclosing “means for monitoring the widths of each of the strips and for generating first signals denoting the monitored widths (33, 34, Figures 4-5).” As argued above, Mattei does not disclose two devices for monitoring the respective widths of each of the divided webs. Detector device 33 has arms 36 and 37 that are long enough to measure the width of the web 10; while detector device 34 can only monitor one side of web 11 and thus, only measures the position of web 11.

Claim 15 recites “means for monitoring the widths of each of the strips”, which invokes 35 U.S.C. §112, sixth paragraph. In such instances, the Action must not only show that the prior art structure performs an identical function as that specified in the claim (i.e., a “monitoring” means), but that the prior art structure or step is the same as or equivalent to the structure, material, or acts described in the specification which has been identified as corresponding to the claimed means or step plus function. MPEP § 2182.

As stated in Section V, the structure in the specification corresponding to the “monitoring means” are two devices or sensors 26, 27.

The November 21, 2003 Action acknowledges that Mattei only checks the width of one of two webs. The October 20, 2004 ignores the recited limitation of two sensors for measuring the width of a respective strip and states that “the issue at hand is whether the device of Mattei is capable of performing all the recited function.” The Examiner is reminded that this is an obviousness rejection and thus the issue at hand is whether Mattei teaches or suggests modify its invention to have two sensors. As argued above, it is respectfully submitted that Mattei teaches against the claimed invention and does not provide any motivation for modifying its invention to achieve the claimed invention. Accordingly, the Action has failed to provide a *prima facie* obviousness rejection of

claim 15 with the “means for” limitations. As such, the rejection is improper and should be reversed.

It is respectfully submitted that the Examiner employed impermissible hindsight reconstruction of the disclosure of Mattei to reject Appellant’s invention. Clearly, Mattei is not concerned with dividing an elongated web of **a variable width** and is concerned with the position of the web as it passes the cutting device. Nowhere does Mattei discuss or suggest “means for monitoring the widths of each of the strips and for generating first signals denoting the monitored widths”, nor does Mattei teach or suggest means for processing the signals denoting the monitored widths and generating second signals when the widths of the strips deviate from one another. Thus, it is only the Appellant’s own disclosure that recognizes the importance of monitoring the width of each strip and processing signals denoting the monitored widths as Appellant’s inventions is concerned with dividing a web that is of **variable width**.

Claims 18-22 and 29-31 depend from claim 15 and are allowable as depending from an allowable claim.

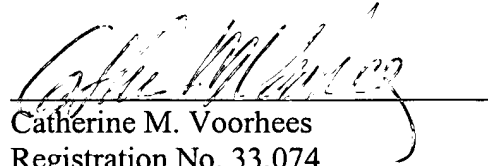
VIII. CONCLUSION

For the foregoing reasons, it is respectfully submitted that independent claims 1 and 15 and their dependent claims 2-3, 7-12, and 14; and 18-22 and 29-31, respectively are patentable over Mattei. Accordingly, the Examiner’s rejection of these claims should be reversed. In that claims 1 and 15 are generic to the species of the inventions as set forth in the June 2, 2003 Response to Election of Species Requirement and Amendment and are allowable over the prior art of record, Appellant request rejoinder of claims 5-6, which depend from claim 1 and claims 16-17 and 23-28, which depend directly or indirectly from claim 15.

The \$330.00 fee set forth in 37 C.F.R. § 1.17(c) was submitted with the Appeal Brief that was filed on April 23, 2004. In that the Appeal Brief fee was increased to \$500.00 on December 8, 2004, the Commissioner may charge the difference between the current Appeal Brief fee and the previously paid Appeal Brief fee to our Deposit Account No. 22-0261 and notify the undersigned.

Date: February 22, 2005

Respectfully submitted,



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IX. CLAIMS APPENDIX

Claim 1 (Previously Presented): A method of dividing an elongated web having a variable width into a plurality of elongated strips, comprising the steps of:

advancing the web lengthwise in a predetermined direction along a predetermined path;

subdividing the web into a plurality of strips, including cutting the advancing web in at least one severing plane;

monitoring the widths of each of the strips and generating signals denoting the monitored widths;

processing said signals; and

shifting at least one of the web and the severing plane sideways when the processing step indicates departure of at least one monitored width from at least one other monitored width.

Claim 2 (Original): The method of claim 1, wherein said subdividing step includes splitting the web into two strips.

Claim 3 (Original): The method of claim 2, wherein said processing step includes comparing the signals denoting the widths of said two strips.

Claim 4 (Canceled).

Claim 5 (Withdrawn): The method of claim 4, wherein said shifting step includes moving the web sideways in a direction to reduce the width of the strip having a width exceeding half the width of the web.

Claim 6 (Withdrawn): The method of claim 3, wherein said shifting step includes turning the advancing web about an axis which is located in said at least one severing plane.

Claim 7 (Original): The method of claim 1, further comprising the step of advancing the strips along second paths.

Claim 8 (Original): The method of claim 7, wherein said step of advancing the strips includes establishing a variable spacing between said second paths.

Claim 9 (Original): The method of claim 8, wherein said monitoring step is carried out in said second paths.

Claim 10 (Original): The method of claim 8, wherein the establishment of said variable spacing includes changing the mutual inclinations of two neighboring successive increments of each of said second paths.

Claim 11 (Original): The method of claim 10, wherein said second paths slope downwardly from said at least one severing plane as seen transversely of said predetermined direction.

Claim 12 (Previously Presented): The method of claim 8, wherein said step of establishing a variable spacing includes shifting at least one of the strips sideways.

Claim 13 (Canceled).

Claim 14 (Original): The method of claim 12, wherein said step of shifting at least one of the strips includes shifting only one of said strips sideways relative to the other of said strips.

Claim 15 (Previously Presented): Apparatus for dividing an elongated web having a variable width into two strips, comprising:

means for advancing the web lengthwise in a predetermined direction along a predetermined path;

means for subdividing the web into two strips including a severing unit arranged to split the web in a severing plane;

means for monitoring the widths of each of the strips and for generating first signals denoting the monitored widths;

means for processing said first signals and for generating second signals when the widths of the strips deviate from each other; and

adjusting means including means for shifting at least one of the web and the subdividing means transversely of said direction in response to said second signals.

Claim 16 (Withdrawn): The apparatus of claim 15, wherein said adjusting means includes only means for shifting the web of transversely of said direction.

Claim 17 (Withdrawn): the apparatus of claim 15, wherein said shifting means includes first and second rollers flanking the web upstream of said severing unit and rotatable about at least substantially parallel axes, and means for jointly turning said rollers about an axis at least substantially normal to said at least substantially parallel axes.

Claim 18 (Previously Presented): The apparatus of claim 15, wherein said advancing means includes a first pair of rolls each engaging a different one of the strips, said first rolls being rotatable about axes which are inclined relative to each other.

Claim 19 (Previously Presented): The apparatus of claim 18, wherein said first rolls are adjacent one side of said path and said advancing means further includes a second pair of rolls each engaging a different one of the strips, the rolls of said second pair being adjacent the other side of said path and having axes which are inclined relative to each other.

Claim 20 (Previously Presented): The apparatus of claim 19, wherein said monitoring means is disposed downstream of at least one of said first and second pairs of rolls as seen in said predetermined direction.

Claim 21 (Previously Presented): The apparatus of claim 19, further comprising means for changing the level of at least one of said first and second pairs of rolls.

Claim 22 (Previously Presented): The apparatus of claim 21, wherein at least one of said first and second pair of rolls is disposed beneath the respective portion of said predetermined path.

Claim 23 (Withdrawn): The apparatus of claim 22, further comprising a deflecting roller contacting the strips downstream of said at least one pair of rolls, said level changing means including an elevator common to said at least one pair of rolls and said deflecting roller.

Claim 24 (Withdrawn): The apparatus of claim 23, wherein said at least one pair of rolls and said deflecting roller are disposed at opposite sides of said path.

Claim 25 (Withdrawn): The apparatus of claim 23, further comprising a housing having a guide for said elevator.

Claim 26 (Withdrawn): The apparatus of claim 25, wherein said elevator comprises a platform supporting said deflecting roller and said at least one pair of rolls and being movable along said guide.

Claim 27 (Withdrawn): The apparatus of claim 26, wherein said level changing means further comprises a feed screw operable to move said platform along said guide and fastener means releasably securing said platform to said housing.

Claim 28 (Withdrawn): The apparatus of claim 25, wherein said guide is a dovetailed guide.

Claim 29 (Previously Presented): The apparatus of claim 18, wherein said first rolls are disposed at a level below the respective portion of said predetermined path, the

apparatus further comprising means for changing the level of at least one of said first rolls.

Claim 30 (Previously Presented): The apparatus of claim 29, wherein said processing means includes means for generating second signals denoting the combined width of the strips and said means for changing the level of the at least one roll is responsive to said second signals.

Claim 31 (Previously Presented): The apparatus of claim 30, wherein said processing means further comprises means for generating additional signals denoting the widths of the strips and the strip shifting means further includes means for changing the level of the other of the rolls in response to said additional signals.